

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 02/00656

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H01H 61/00, H01H 67/22
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H01H, H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN Vol. 015, no 490 (E-1144). 11 December 1991 (1991-12-11) & JP 03 214534 (FUJI ELECTRIC CO LTD), 19 September 1991 (1991-09-19) abstract	1-21
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X	PATENT ABSTRACTS OF JAPAN Vol. 016, no. 073 (E-1169). 21 February 1992 (1992-02-21) & JP 03 263729 (NEC CORP), 25 November 1991 (1991-11-25) abstract	1-21
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☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier application or patent but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

& document member of the same patent family

Date of the actual completion of the international search

28 October 2002

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05-11-2002

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INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5084691 A (THEODORE V. LESTER ET AL), 28 January 1992 (28.01.92), column 4, line 16 - line 44, figures 1-3 ---	7-21
X	US 4124835 A (WILLIAM J. CAHILL, JR.), 7 November 1978 (07.11.78), column 5, line 14 - line 31, figure 3 --	7-21
A	PATENT ABSTRACTS OF JAPAN Vol. 010, No. 217 (E-423). 29 July 1986 (1986-07-29) & JP 61 053862 (NEC CORP), 17 March 1986 (1986-03-17) abstract -----	1-38



PATENT ABSTRACTS OF JAPAN

(11) Publication number: 03214534 A

(43) Date of publication of application: 19.09.1991

(51) Int. Cl. H01H 85/00
H01H 9/10(21) Application number: 02008031
(22) Date of filing: 17.01.1990(71) Applicant: FUJI ELECTRIC CO LTD
(72) Inventor: TOKIDA NORIYUKI

(54) POWER SWITCH

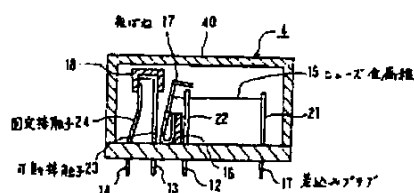
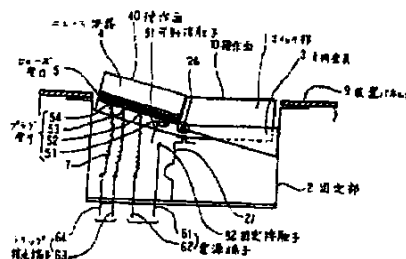
(57) Abstract:

PURPOSE: To reduce the number of component parts used, by constructing a fuse case so that its one surface serves as a switch operating surface, incorporating a pair of contact pieces in the fuse case, and furnishing a trip contact terminal.

CONSTITUTION: A socket 5 for a fuse case 4 is fixed to the left half of a switch part 1, and four plug receptacles 51-54 are furnished, among which the receptacles 52-54 are connected with power supply terminal 62 and trip contact terminals 63, 64 as mating respectively while the receptacle 51 is connected with a movable contact piece 81. Another power supply terminal 61 is connected with a fixed contact piece 82. When the operating surface 40 of a power switch is pushed to cause to be flush with the device panel surface 9, a fuse metal wire 15 is connected with the power supply terminals 61, 62 serially, and the wire 15 will blow off. Now another movable contact piece 23 inclines to contact a fixed contact piece 24, and the abovementioned

trip contact terminals 63, 64 shortcircuit to each other. Accordingly if a pair of trip contact terminals are put in connection with an alarm circuit, the power switch can serve also as an alarm fuse when the fuse blow off, which allows accomplishing reduction of the number of component parts used.

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PATENT ABSTRACTS OF JAPAN

(11) Publication number: 03263729 A

(43) Date of publication of application: 25.11.1991

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(21) Application number: 02063013

(22) Date of filing: 13.03.1990

(71) Applicant: NEC CORP

KOUFU NIPPON DENKI KK

(72) Inventor: YAJIMA HIDEHARU

TACHIKAWA HIROSHI

(54) ALARM FUSE

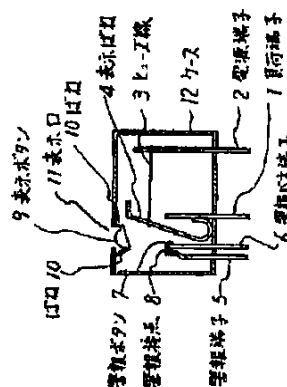
9 is protruded to the outside on the surface of the case 12 through the display port 11.

(57) Abstract:

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PURPOSE: To easily identify the display of fusion by protruding a display button to the outside of a case through a display port.

CONSTITUTION: A fuse wire 3 is stretched between a load terminal 1, a power source terminal 2 and a display spring 4 connected to the load terminal 1 of an alarm fuse, and an alarm terminal 5 and an alarm spring terminal 6 are provided in a case 12. A display button 9 is fitted in the case 12 by a spring 10 at the portion of a display port 11. When the fuse 3 is melted, the display spring 4 is returned to the original position by the restoring force, and the display button





PATENT ABSTRACTS OF JAPAN

(11) Publication number: 61053862 A

(43) Date of publication of application: 17.03.1986

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H02H 3/04

(21) Application number: 59174750

(22) Date of filing: 22.08.1984

(71) Applicant: NEC CORP

(72) Inventor: SHIMIZU SHIGERU

(54) TROUBLE MONITOR/ALARM CIRCUIT

blowing trouble to the outside.

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(57) Abstract:

PURPOSE: To display and alarm a power supply system at trouble by supplying electric power to an exchange monitor/alarm circuit and fuse alarm circuit through the 2nd alarm fuse when a fuse alarm sub-circuit detects the 1st alarm fuse blowing.

CONSTITUTION: When the 1st alarm fuse SF1 is blown, a fuse alarm sub-circuit SA operates and its node sa_2 is opened and closed. The power inputted from the 2nd alarm fuse SF2 is supplied to relays FA and PA through the node sa_2 and a diode. As a result, the relays FA and PA can monitor normally the blowing of a fuse F and the normality of a power source circuit of each exchange. When the 2nd alarm fuse SF2 is blown, the relay FA operates, and a lamp FL lights up. Moreover the 2nd blowing is informed as the fuse

